Special Issue

Aerogels and Their Functionalization for Practical Applications

Message from the Guest Editor

Dear colleagues, Aerogels are unique materials possessing a wonderful combination of properties including high specific surface area and high porosity, low density and low thermal conductivity. Their use as thermal and acoustic insulators, high capacity sorbents, and supercapacitors is widespread.

The huge specific surface area of aerogels implies very high surface energy due to a high proportion of surface atoms and molecules. This feature makes it possible for the chemical modification of surface functional groups to provide aerogels with additional functionality and to prepare novel construction and functional materials.

The ultimate goal of this issue is to get a set of papers concentrated on aerogels functionalization for modern practical applications. The possible physical and chemical modifications are virtually countless, and so are the types of aerogels which could be designed in this way. Prof. Dr. Vladimir K. Ivanov

Guest Editor

Prof. Dr. Vladimir Ivanov
Kurnakov Institute of General and Inorganic Chemistry of the Russian Academy of Sciences, Moscow 119991, Russia

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Prof. Dr. Yuguang Ma
State Key Laboratory of Luminescent Materials and Devices, South China University of Technology, Guangzhou 510640, China

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